

PROJECT NAME: Biotechnology/Forensic Science Equipment

RECIPIENT: Utah Valley University

LOCATION: Orem, Utah

PURPOSE:

Utah Valley University (UVU) is in the design phase for a new 160,000 square foot science laboratory building. Included in this building is space allocated our Biotechnology / Forensics laboratory program. This program will receive students and funding from the State of Utah, Utah Valley University, Salt Lake Community College and private donors. However, to provide the proper experiences to our students we request \$1,537,571.00 for instrumentation and equipment of the biotechnology/forensic laboratory. These funds will equip five areas of the laboratory needs in biotechnology/ forensic education.

The biotechnology / forensics laboratory will primarily be used as a teaching facility. Entry-level students in A.S. and B.S. degree programs in forensic science and biotechnology will be educated in these facilities. The lab complex combines Biotechnology and Forensics to share the equipment and instrumentation in these labs, thus avoiding the expense of duplicating facilities or equipment. This laboratory complex is *not* a high-risk research facility, and during teaching, only Biological Safety Level 2 (BSL-2) agents will be used. The biotechnology laboratories will facilitate our partnership with Salt Lake Community College, which prepares students to enter our program as juniors with an associate of science degree.

Practical education in this facility needs to be equipped with the latest instrumentation used in Forensic Science and Biotechnology. Training will be hands-on so that each person will have individualized instruction with instruments and will perform experiments individually with faculty mentors. As an added incentive student interns will do limited contract research work at the undergraduate level for federal, state and private organizations on an as-needed basis. This contract research program will provide our students with practical experience to further educate using hypothesis-based research with up-to-date instrumentation.

Included in the facility for Microbiology and Virology students will be a *training module* for BSL-3 safety level. This training module will be equipped with both Class II and III biological safety cabinets. The purpose of these labs is to educate students in forensic science and biotechnology to work in safe containment facilities. New government regulations are in place under Homeland Security mandates that have permanently altered our perception of investigative laboratory work and laboratory safety. NIH, CDC and OSHA regulations and recommendations have been modified to support these changes. The equipment needed for our laboratory facilities have been designed to take these regulations into account.

It is desired that our students may obtain employment at these levels of biosafety in state, federal, and industrial laboratories. Little or no entry-level education is provided in Utah at present to

prepare for the ever-increasing number of technical laboratory positions necessary, particularly in Utah, where the Biotechnology industry is increasing dramatically. Our intent is to educate, train and certify our students for laboratory-based job markets as well as to provide economic development and technical services for the State of Utah. *These modules will not handle BSL-3 materials. The BSL-3 modules are for training only.*

AMOUNT: \$1,527,571